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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590 10/08/2003				
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3202				
EXAMINER HANNAHER, CONSTANTINE				
ART UNIT 2878		PAPER NUMBER		

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/919,853

Applicant(s)

SENDAI ET AL.

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4, 6-10 and 16-18 is/are allowed.
- 6) ☒ Claim(s) 1, 5 and 12 is/are rejected.
- 7) ☒ Claim(s) 11, 13-15 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1, 5, and 12/5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US006070096A) in view of Graessle *et al.* (US005334841A) and Cline *et al.* (US006462770B1).

With respect to independent claim 1, Hayashi discloses a method of displaying a fluorescent light image corresponding to the illustrated apparatus (Fig. 6) which would comprise the steps of irradiating a target area 10 with an illuminating light L2 and an excitation light L1 that has been emitted from an excitation light emitting means 111 and guided 106 to the target area 10, obtaining, by use of a single image obtaining means 120 provided with separate image obtaining portions for obtaining a fluorescent light image 140 and a standard image 130 of the types recited, and displaying

160 a fluorescent light image and a standard image. Hayashi does not disclose any preparations for malfunction. Nevertheless, those of ordinary skill in the art of detecting fluorescence know from Graessle *et al.* that verification of the energy source which excites the target material is important (column 4, lines 60-65). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Hayashi to further include a step of detecting that an operational irregularity had occurred in the excitation light emitting means **111** as suggested by Graessle *et al.* in view of the desirable notice to the operator that a malfunction had occurred. Although Graessle *et al.* suggests only the provision of an alarm, Cline *et al.* discloses that the image obtaining portion for the fluorescent light image must be protected when not in use obtaining a fluorescent light image (column 11, lines 29-37), so it would have been obvious to one of ordinary skill in the art at the time the invention was made in response to a detection signal of operational irregularity in the excitation light emitting means **111** of Hayashi as suggested by Graessle *et al.* to switch the image obtaining means to a standard image obtaining mode (by movement of mirror **121** in Hayashi by analogy to mirror **186** in Cline *et al.* (Fig. 6). Once mirror **121** was so set, the steps of emitting the illuminating light **L2** from source **118**, obtaining the standard image from portion **130**, and displaying **160** the standard image would not take more than ordinary skill in the art in view of the continued utility of the method achieved thereby.

With respect to independent claim 5, Hayashi discloses an apparatus (Fig. 6) for displaying a fluorescent light image comprising an excitation light emitting means **111** for emitting an excitation light **L1**, illuminating light emitting means **118** for emitting an illuminating light **L2**, light guiding means **106** for guiding the excitation light **L1** and the illuminating light **L2** to a target area **10**, a single image obtaining means **120** provided with separate image obtaining portions for obtaining a fluorescent light image **140** and a standard image **130** of the types recited, display means **160** for

displaying a fluorescent light image and a standard image, and an image display controlling means **158**. Hayashi does not disclose any preparations for malfunction. Nevertheless, those of ordinary skill in the art of detecting fluorescence know from Graessle *et al.* that verification of the energy source which excites the target material is important (column 4, lines 60-65). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus disclosed by Hayashi to further include an excitation light irregularity detecting means for detecting that an operational irregularity had occurred in the excitation light emitting means **111** as suggested by Graessle *et al.* in view of the desirable notice to the operator that a malfunction had occurred. Although Graessle *et al.* suggests only the provision of an alarm, Cline *et al.* discloses that the image obtaining portion for the fluorescent light image must be protected when not in use obtaining a fluorescent light image (column 11, lines 29-37), so it would have been obvious to one of ordinary skill in the art at the time the invention was made in response to a detection signal of operational irregularity in the excitation light emitting means **111** of Hayashi as suggested by Graessle *et al.* to have the apparatus comprise a standard image display controlling means for causing the image obtaining means to switch to a standard image obtaining mode (by movement of mirror **121** in Hayashi by analogy to mirror **186** in Cline *et al.* (Fig. 6). Once mirror **121** was so set, the causing of emitting the illuminating light **L2** from source **118** and displaying **160** the standard image would not take more than ordinary skill in the art in view of the continued utility of the apparatus achieved thereby.

With respect to dependent claim 12/5, the display means **160** in the apparatus of Hayashi is a single apparatus that switches between the standard image and the fluorescent light image (but may overlay them when necessary, column 25, lines 32-36).

Response to Submission(s)

4. The amendment filed August 26, 2003 has been entered.
5. Applicant's arguments filed August 26, 2003 have been fully considered but they are not persuasive.

Applicant argues:

These steps for protecting elements of a fluorescence camera head during changeover from a fluorescence imaging mode to a white light imaging mode do not teach or suggest the steps of "emitting the illuminating-light," "switching the image obtaining means to a standard-image obtaining mode," "obtaining the standard-image" and "displaying the standard-image" in response to a detected operational irregularity, as recited in claim 1 (see also claim 5).

As made clear by the explanation of rejection, the steps of "emitting the illuminating-light," "obtaining the standard-image," and "displaying the standard-image" are already disclosed by Hayashi. Since the method and apparatus of Hayashi has continued utility regardless of the position of mirror 121 no modification is necessary to retain these features when implementing the switching in response to any detected operational irregularity suggested by Gracssle *et al.* and Cline *et al.*

For at least the reasons explained above, Applicant is not entitled to a favorable determination of patentability in view of the arguments submitted August 26, 2003.

Allowable Subject Matter

6. Claims 2-4, 6-10, 11-15 (insofar as they depend upon one of claims 6-10), 16-18, and 19 (insofar as it depends upon one of claims 6-10) are allowed.
7. Claims 11, 13-15, and 19 (insofar as they depend upon claim 5) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (703) 308-4850. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Constantine Hannaher
Primary Examiner